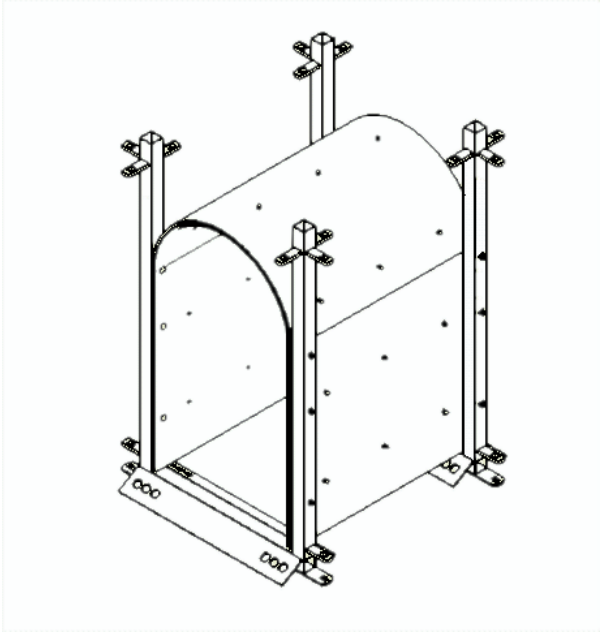
TAG READER™

ONE BOARD

USER MANUAL



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Appendix 1: ScotEID desktop application instructions

OVERVIEW

Thank you for purchasing a Tag Reader. The following manual has been written to help you set up your Tag Reader. Please read the manual carefully and follow advice to ensure your Tag Reader operates at full performance.

SPECIFICATIONS

	Single Board Tag Reader
Dimensions (cm)	
Width Ext/Int	70/47
Length Ext/Int	76/62
Height Ext/Int	101/86
Power	
12v Battery	Yes
Transformer (240v reduced to 12v)	Yes
Tag Compatibility	
ISO HDX	Yes
ISO FDX-B	Yes
Technical Specifications	
Operating frequency	134.2kHz
Sound	Buzzer sounds on tag read
Antenna tuning	Auto-tune
Tuning time	Less 150msec
Antenna voltage, current	~40Vrms, 3.8Arms (circulating current)

The above specification details are subject to change at any time without notice.

COMPONENTS

Your Tag Reader comprises of three key components:

1. antenna;
2. reader board; and
3. power supply.

Antenna

The antenna creates a field to enable the signal from the tag on the animal to be read. The antenna on the Tag Reader has been carefully developed to create the optimum field.

Reader Board

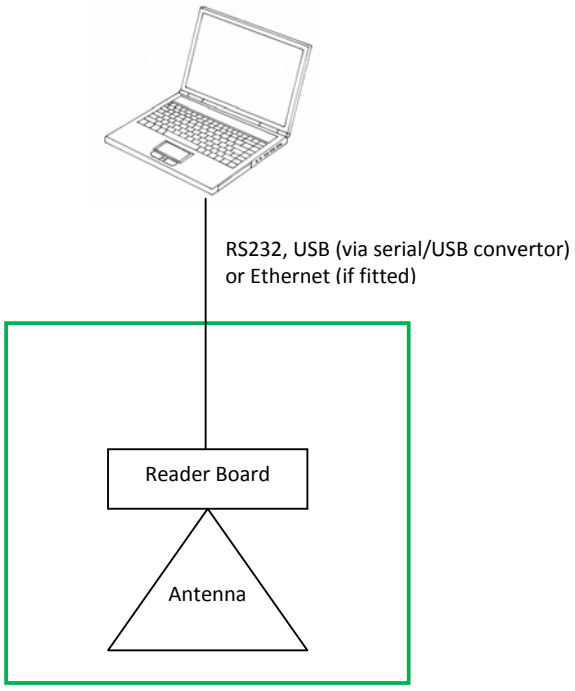
The reader board picks up the tag signal and translates the signal into data that is received by your computer. Tag Reader uses EDiT iD higher performance boards which are compatible with ISO 11784 and 11758 standards enabling them to be read by a computer.

Power Supply

The unit requires a 12v DC supply. This can be achieved by the use of a transformer or a 12v battery. If a transformer is used it must be a low noise regulated supply or read range performance may suffer.

Single Board Tag Readers

The Tag Reader you have purchased is a single board reader. This reader uses a specially designed antenna to create an intense field within the arch of the antenna.



INSTALLATION

Your Tag Reader is a stand alone product meaning that it operates as a single unit. However, a PC / laptop and appropriate software will be required to enable you to read the data produced by the Tag Reader.

There are four steps to getting your Tag Reader up and running:

1. PC / laptop set up
2. Software installation
3. Tag Reader installation
4. Connecting Tag Reader to your software

STEP 1: PC / laptop set up

The set up of your PC / laptop is dependant on your individual requirements. The PC / laptop can be permanently connected to the Tag Reader or it can be removed and reattached as required.

An internet connection is not a necessity, however, will be needed if you wish to upload your data onto an external central database in real time (e.g. ScotEID).

We advise that you keep other programmes and software installed on your PC / laptop to a minimum. This will ensure the PC / laptop does not obstruct the running of your Tag Reader.

STEP 2: Software installation

The installation of software is dependant on the software you have chosen to use.

[For users in Scotland using the ScotEID Desktop application please see the guide provided in Appendix 1 and follow:

- *Step 1: Checking for the presence of Java on your PC; and*
- *Step 2: Downloading the software]*

STEP 3: Tag Reader Installation

I. Position of the Tag Reader

Ensure you have located your Tag Reader in the optimum position. If you have a fixed reader we are happy to discuss this with you before the Tag Reader is permanently installed. If your reader is portable you should ensure you have not located the Tag Reader in the close vicinity of any electrical equipment, as it will interfere with the electromagnetic fields.

DO!

- Locate your Tag Reader where you can easily access it as required.
- Ensure your Tag Reader is situated appropriately for animal movements.
- Think about where your PC / laptop will be situated in relation to your Tag Reader.

DO NOT locate your Tag Reader close to;

- CRT monitors and televisions;
- Transformers;
- Electrical motors;
- Any other general electrical equipment;
- Large amounts of metal work or metal objects.

II. Connecting the power supply

The unit requires a 12v DC supply. Low noise power supply or the read range performance ma y suffer.

The unit operates well from an automotive 12 volt battery. **Do not connect the reader to an automotive battery whilst connected to a running vehicle**.

Single board Tag Reader with power lead (transformer built in)

- Plug in lead power into a residential power supply.

DO NOT SWITCH YOUR TAG READER ON AT THIS STAGE.

III. Connecting the computer leads

Connect the reader box to your PC / laptop via:

- RS232
- USB (via Serial/USB Converter)
- Ethernet cable (if fitted)

Serial port connection

The serial port outputs the tag data and is used for the configuration and the diagnostics through a RS232 serial link. The serial port (normally Com 1) settings are as follows:

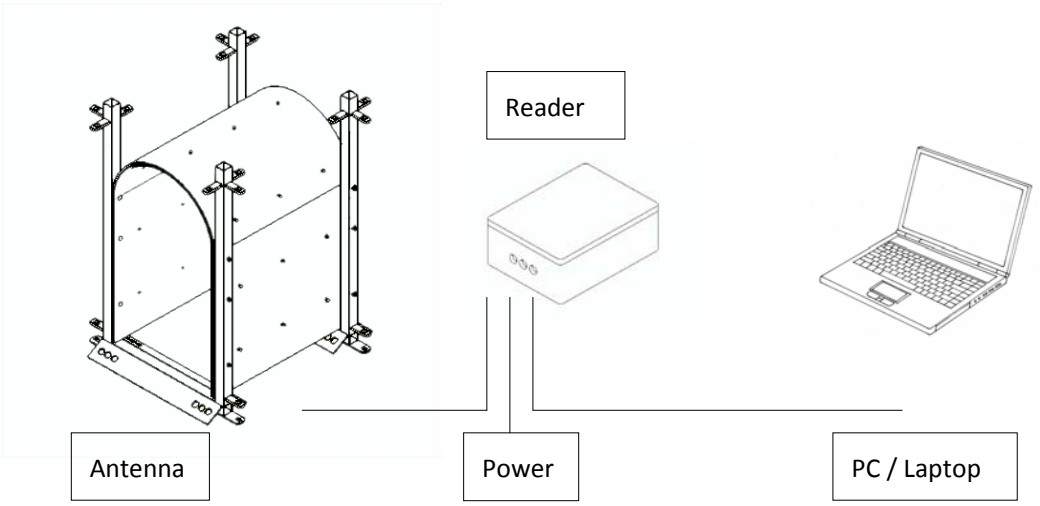
- Baud Rate: 9600
- Data Bits: 8
- Parity: None
- Stop Bits: 1
- Flow Control: None

USB (via Serial/USB Converter)

You will need to check the Com Port number the PC/laptop is using. (normally Com 1)

Ethernet – TCP/IP

IP address is: 192.168.1.210
Port: 10001
The IP address can be re-configured by the user if required



IV. Switch on your PC / laptop and configure software

Your Tag Reader is now set up and ready! You just need to configure your software to enable you to read any data (see Step 4 below).

To switch your Tag Reader on simply turn on the power supply.

STEP 4. Connecting Tag Reader to your software

The next step is configuring your software to read the data your computer is receiving. How this is achieved will depend on the software you are using. We will have previously ensured that your software is compatible and will be able to advise you accordingly.

[For users in Scotland using the ScotEID Desktop application please see the guide provided in Appendix 1 and follow:

- *Step 3: Running the programme.*
    - *Select Full ISO 24631 compliant when promoted to do so.]*

TESTING YOUR TAG READER

If you have not installed the applicable software or you think there may be a problem you can test the Tag Reader to ensure it is working correctly.

1. Following steps 1 – 4 above to install your Tag Reader.
2. Switch the Tag Reader on at the power supply.
3. Test by presenting a tag to the Tag Reader. If the Tag Reader beeps the tag has been successfully read and everything is working correctly.

PROBLEM SOLVING

Problem	Solution
On and off beeping lasting approximately 3 seconds when no tag presented.	Indicates a problem with the antenna. Firstly, if you have a remote EID reader box ensure the antenna is correctly connected. Secondly, ensure your Tag Reader is located appropriately. It is possible a high level of electromagnetic interference is preventing the Tag Reader from auto-tuning. See **Position of the Tag Reader**. If problems persist call for further assistance.
Continuous Beep when switched on.	Indicates that the antenna is short circuited and may be positioned close to a metal object. Remove metal object. Switch unit off and back on again. If problems persist call for further assistance.
No beep when tag presented.	It is possible the Tag Reader is not on. Ensure all cables are securely connected and the power is switched on. It is possible the tag is faulty. Try using another tag. If problems persist call for further assistance.
Tag Reader will not configure with my software.	To check whether this is a Tag Reader or software problem perform steps above **Testing your Tag Reader**. If the tag is not read ensure all cables are securely connected and the power is switched on. If problems persist call for further assistance. If Tag Reader is working but you are unable to configure your software we are happy to try and help, however, you may need to contact your software provider.
Low read rate.	This is very likely due to be caused by high electromagnet interference. Ensure your Tag Reader is located appropriately. See **Position of the Tag Reader**.
If problems still exist, switch everything off, check all leads are connected and then switch everything back on again.	

If you have implemented the above advice and you are still having problems please call us for further assistance.

We will initially try and correct your Tag Reader remotely. To enable us to do this please call us when you are located at your Tag Reader, ensure you have your Tag Reader set up and connected to a PC / laptop and if possible be connected to the internet. We may be able to access your laptop remotely and diagnose the problem.

Please note that we will only be able to provide limited assistance with software problems and you may be advised to contact your software provider directly.

FURTHER INFORMATION AND ASSISTANCE

For further information and assistance with your Tag Reader please contact Balavil Limited.

Address: Balavil Farm
Conon Bridge
Dingwall
Ross Shire
IV7 8AJ

Office Telephone: 01349 865 988

Mobile Telephone: 07891 493 151

Email: john@tagreader.co.uk

Website: www.tagreader.co.uk

DISCLAIMER

Your Tag Reader has been designed and tested to ensure it is working at optimum capability. Any modifications or alterations made without the consent and approval of Balavil Limited may affect the effectiveness of your Tag Reader and will void any warranty claim.

Whilst every care has been taken to ensure the information contained in this manual is accurate. However, Balavil Limited or any of its employees shall not have any liability for loss or damages as a result of the information provided. We advise that for up to date information regarding Tag Reader products and services you see our website.

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